

**REMARKS**

This is in response to the Office Action mailed on August 9, 2004. Pending in the present application were claims 1-22. The Office Action allowed claims 1-9; objected to claims 12 and 14-21; rejected claims 10, 11, 13 and 22 as being anticipated by the prior art; and objected to Figure 2. With this Amendment, claim 10 and Figure 2 are amended, claim 12 is canceled, and independent claim 23 is added. Applicant believes the present application containing claims 1-11 and 13-23 is now in condition for allowance, and respectfully requests reconsideration and notice to that effect.

**Claims 10, 11, and 13-22**

In the Office Action, claims 10, 13 and 22 were rejected under 35 U.S.C. § 102(b) as being anticipated by Sziebert, U.S. Patent No. 6,064,174 ("Sziebert"), and Skelton et al., U.S. Patent No. 5,257,175 ("Skelton"); claim 11 was rejected as being anticipated by Skelton; and dependent claims 12 and 14-21 were objected to as being dependent upon a rejected base claim.

Independent claim 10, as amended, and its dependent claims 11 and 13-22 (claim 12 has been canceled in favor of new independent claim 23 discussed below) each recite a voice coil motor circuit having an H-bridge circuit and first and second power amplifier circuits. As clarified by this Amendment, each of first and second power amplifier circuits includes a single operational amplifier connected to the control regions of two transistors of the H-bridge circuit. Specifically, the single operational amplifier of the first power amplifier circuit connects to control regions of both first and third transistors of the H-bridge circuit, while the single operational amplifier of the second power amplifier circuit connects to the control regions of both second and fourth transistors of the H-bridge circuit.

Differently, Sziebert and Skelton each teach the use of four operational amplifiers – one amplifier for each transistor of the H-bridge circuit. It is argued in the Office Action that each of the claimed operational amplifiers is met in the prior art by a combination of two operational amplifiers. However, the amended claims recite a single operational amplifier, which cannot be met by combining two operational amplifiers. The circuitry of Sziebert and Skelton, because of the use

of individual operational amplifiers for each H-bridge transistor, will necessarily have greater power dissipation and will require greater die area than the circuitry of claim 10. (Page 1, lines 24-30). It was these disadvantages of the prior art that the present inventors sought to overcome. Because the circuits of Sziebert and Skelton do not teach or suggest all of the elements recited in amended claim 10, the rejection of claim 10 under 35 U.S.C. § 102(a) should be withdrawn. Claims 11 and 13-20, which each depend from claim 10, are allowable for the same reasons a claim 10.

#### New Claim 23

Claim 12 was objected to as being dependent upon a rejected base claim, but was indicated to be allowable if rewritten in independent form. Accordingly, presented herein is new independent claim 23 having each element of independent claim 10 and dependent claim 12.

#### Drawings

In the Office Action, Figure 2 was objected to for failing to show output lines to the gates of transistors M1 through M4. With this Amendment, Applicant has amended Figure 2 (consistent with Figures 1, 3, and 4) to include transistors M1-M4 with appropriate connections to operational amplifiers 26 and 28. Applicant has further amended Figure 2 to correct some minor errors. Resistor R8 now connects to input node VIN as described at page 4, line 20 of the application. Operational amplifiers 26 and 28 now identify the positive and negative terminals as described at page 4, lines 8-23 of the application. Finally, the units for resistors R1, R2, R6, and R7 are corrected to be kilo-ohms. This correction finds support at page 4, line 24 through page 5, line 4 of the application, where it is explained that each of opamps 26 and 28 have a gain of 8 V/V due the values selected for resistors R1-R10.


Conclusion

The application containing pending claims 1-11 and 13-23 is in condition for allowance. Reconsideration and notice to that effect is respectfully requested. The Examiner is invited to contact the undersigned at the telephone number listed below if such a call would in any way facilitate allowance of the application.

Respectfully submitted,

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